

WHAT IS CLAIMED IS:

1. A transcoder system for adaptively reducing frame rate capable of changing audio-visual stream of a GOP (group of pictures), each picture consisting of a plurality of macroblocks, the transcoder system comprising:

5 a switching device, which inputs the audio-visual stream and permits passing a part of pictures in accordance with a first algorithm;

a variable length decoder connected to the switching device, which retrieves motion vector for each macroblock in the pictures;

10 a motion vector compensation device, which computes output motion vectors respectively for the macroblocks in accordance with an input picture type;

a memory connected to the motion vector compensation device, which stores the output motion vectors computed by the motion vector compensation device; and

15 an encoder/decoder (codec) connected to the switching device, which decodes the pictures passing through the switching device using motion vector technique and then re-codes the pictures decoded in accordance with the output motion vectors computed by the motion vector compensation device.

20 2. The transcoder system as claimed in claim 1, wherein the codec comprises a first inverse quantizer and a second inverse quantizer, which have separate step sizes.

3. The transcoder system as claimed in claim 1, wherein the input picture type is a first type to indicate that a preceding I- or P-picture and a

current P-picture pass through the switching device.

4. The transcoder system as claimed in claim 1, wherein the input picture type is a second type to indicate that a preceding I- or P-picture and a current B-picture pass through the switching device.

5 5. The transcoder system as claimed in claim 1, wherein the input picture type is a third type to indicate that a preceding B-picture and a current B-picture pass through the switching device.

6. The transcoder system as claimed in claim 1, wherein the input picture type is a fourth type to indicate that a preceding B-picture and a
10 current P-picture pass through the switching device.

7. The transcoder system as claimed in claim 1, wherein the first algorithm performs that the switching device selects one every N pictures in the audio-visual stream for passing, so as to reduce frame rate, where N is a positive integer.

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